

Kentucky Lead Workgroup Meeting
August 17, 2016
1:30 – 3:00 PM EST
Kentucky Division of Water
300 Sower Blvd
Frankfort, Kentucky 40601

1. Call Meeting to Order and Roll Call of Membership – Greg Heitzman
2. Introduce Guests
3. Approve Minutes of June 15, 2016
4. Presentation by Distribution Piping Sub-group – Bill Robertson
5. National Drinking Water Advisory Council Report on Lead – Greg Heitzman
6. Review Sub-groups Assignments and Schedule
7. Discuss Report Template
8. Open Discussion for Workgroup
9. Public Comment Period
10. Next Workgroup Meeting, 1:30 PM – September 21, 2016

300 Sower Blvd, Frankfort, KY 40601

August 17, 2016

PUBLIC SIGN-IN SHEET

Name	Agency/Organization	Email Address	Phone number
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Amber Agee	KY Envirohead	ambern.agee@ky.gov	(502) 564-4537
Todd Ritter	DOW-CTAS	todd.ritter@ky.gov	502-782-7050
Kay Sarban	KY/ITN Section	AMWA executive@kytnawva.org	502.550.2992
Sarah Gaddis	KY DOW	sarah.gaddis@ky.gov	(502) 931-8000
Annis Jorjany	KY Envirohead	407th floor	

LEAD IN DRINKING WATER WORK GROUP
300 Sower Blvd, Frankfort, KY 40601
August 17, 2016
WORK GROUP MEMBER SIGN-IN SHEET

Name	Agency/Organization	Email Address	Phone number
John Sensabaugh	Kentucky American	john.sensabaugh@kwater.com	851-218-6342
Jim Smith	Arnold CO. WATER	ccox@ccwb.com	502-347-9470
Greg Abernethy	Ky Rural Water	g.abernethy@krwa.org	270-845-2291
Brad Montgomery	ACE-KY (GRW)	bmontgomery@grwinc.com	(855) 223-3999
Bill ROBERTSON	ADVOCATE KILATER	brobertson@pwwk.com	270-217-3071
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**Drinking Water Advisory Council
Lead in Drinking Water (LIDW) Work Group
Meeting Minutes
June 15, 2016**

In attendance: Greg Heitzman, Chair (BWK), Obe Cox (CCW), Mike Gardner (BGMU), Ron Lovan (NKYW), Bill Robertson (PWWKY), Justin Sensabaugh (KYAW), Rengao Song (LWC), Brian Thomas (MWD),

Liaisons: Gary Larimore (KRWA), Kay Sanborn (KYTN-AWWA)

Absent: Jennifer Burt (DPH), Brad Montgomery (ACEC), Thomas Rockaway (UofL),

Division of Water (DOW): Peter Goodmann, Director; Tom Gabbard, Asst. Director; Samantha Kaiser, Todd Ritter

Dept. of Environmental Protection (DEP): Larry Brannock

Public Attendees: Amber Agee (DPH), Annette Dupont Ewing (KMUA), Samantha Morgan Faulkner (KYOAG-ORI), Haley McCoy (EEC), Vince Monks (LWC), John Mura (EEC)

The meeting was held at the Kentucky Engineering avenger, Frankfort, KY and the meeting began at 1:30 p.m. EDT.

Call Meeting to Order and Roll Call of Membership

Chair Greg Heitzman led the roll call, workgroup introductions, and introduction of guests. Samantha Kaiser was introduced as the new recorder, replacing Carole Catalfo. Peter Goodmann noted that this was a Special Meeting held at an alternate location. Members and guests were reminded to sign in.

Introduction of Guests

Guests introduced themselves.

Approve Minutes of May 18, 2016

The workgroup approved the May Meeting Minutes by consensus.

Ground Rules and Open Meeting Rules

The workgroup received a copy of the Ground Rules and Open Meeting Rules. Greg Heitzman reminded the workgroup that changes can always be made if needed. Peter Goodman indicated that the contact numbers for individuals that just moved to the new Kentucky State building have changed, and need to be updated and distributed to the workgroup.

Presentation on Water Treatment, Corrosion Control Sub-group

Dr. Rengao Song gave a Power Point presentation regarding lead corrosion and control. He discussed that the source of lead is from water service line connections and home piping and plumbing fixtures rather than from water distributed from utilities. The major contributor of lead is corrosion and lead

particulates are significant issues, rather than dissolved lead. He discussed how sampling practices can determine the amount of lead present. Water chemistry is a contributing factor to corrosion and lead sources.

The workgroup discussed the expenses in minimizing corrosion and how treatment can affect water quality. Large utilities may not be able to approach corrosion control the same as small utilities, there are expenses involved and corrosion control options affect the water chemistry.

The workgroup discussed the importance of identifying water quality signal from noise; where noise is a short term variation and signal is a long term variation. Some small utilities are dependent on water chemistry and may not have the knowledge as larger utilities to determine signal versus noise practices. It was suggested that the Division of Water make a recommendation for a monitoring protocol for utilities that request a chemistry change. The workgroup also discussed the effects of changing coagulants; this is an ongoing issue and smaller utilities are more vulnerable. Suppliers have been increasingly pushing coagulant changes, which causes the water chemistry to change; inevitably causing more issues.

The concern of reporting results for 'special samples' was raised by the workgroup. Every sample collection and sample results become public record. Utilities understand the importance of being proactive, but expressed concerns for the risks and obligations associated with perception of this data. The Division of Water agreed to look at the LCR protocol for consideration of 'special samples' and determine the utilities' obligations to report 'special sample' data results to the state.

The work group discussed water quality issues that cause customer complaints, common causes of customer problems, the most efficient way to diagnose problems, and common solutions. Many customer problems are caused from additions to the water system at the customer's home (i.e., water softener).

The issue of replacing lead contaminated water lines, that are the customer's responsibility, was discussed. Research conducted by Mark Edwards, PhD, Virginia Tech, indicates that; one foot of lead contaminated line could cause up to 100 years of exceedance of the lead action levels. Some utilities offer payment assistance, up to \$1000, to assist in the cost of replacing lead lines and utilities can offer filters for the customer's home. The time frame to recoat a line for water chemistry to reach equilibrium again varies from utility to utility. Current data shows that some customers must flush for 90 days before water quality is acceptable. The manner in which lead is removed from a contaminated line determines how long it takes for the water to reach equilibrium.

The sub-group was asked to make a recommendation to the Division of Water to help assist in identifying systems that could have potential issues. The sub-group will help identify what a significant water quality change is, what the indicators are, and a standard protocol.

Another concern was the difference between the corrosivity calculation the Division of Water requires and the corrosivity calculation that Dr. Rengao Song presented to the workgroup. The work group should make a recommendation that will be addressed in the final report.

Review Subgroup Assignments and Schedule

Greg Heitzman reminded the Distribution/Piping sub-group that they will present at the next meeting.

Open Discussion for Workgroup

Mike Gardner discussed an article that was published by The Guardian that questioned lead sampling protocols. The Guardian named the City of Bowling Green as one of 33 cities that allegedly used

improper sampling procedures that could affect lead test results. The Guardian cited an EPA Memo that was distributed on February 29, 2016 which recommended new lead sampling techniques. It is noted that Bowling Green Municipal Utilities and Warren County Water District is in full compliance with all EPA guidelines related to lead testing. EPA has yet to comment on this issue.

Peter Goodmann and Todd Ritter discussed an email reminder sent to utilities to collect samples at designated lead/copper sampling sites, since sampling is only required once every three years. This reminder is sent out by Todd Ritter but is not required by the Division of Water. Mr. Ritter has been sending these emails for about eight years. Changes to the email will reflect the recommendations made by the EPA's Memo and the latest LCR webinar.

Public Comment

No public comments were made.

Next Meeting

The workgroup reached a consensus that there will be no meeting in July due to a conflict with the majority of workgroup members. The next meeting will be held on August 17, 2016 at 1:30 p.m. EDT at the Division of Water, 300 Sower Boulevard, Frankfort, KY. The conference room will be TBD prior to the next meeting notice. All future meeting presentations will be pushed back by one month and will still be held the 3rd Wednesday of each month thereafter. Tom Gabbard will give a tour of the new building at the end of the next workgroup meeting.

Adjournment

The meeting adjourned at 3:40 p.m. EDT.

KENTUCKY LEAD WORKING GROUP

DISTRIBUTION / PIPING SUBGROUP PRESENTATION
 LEAD PRESENTATION
 AUGUST 17, 2016

SUBGROUP MEMBERS: BO FOSBERT, DAVID L. DARTNER, BRIGAD TONKO, THOMAS ROTH, KIM

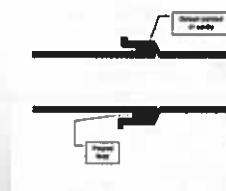
DISTRIBUTION / PIPING SUBGROUP PRESENTATION OVERVIEW

- DISTRIBUTION SYSTEM PIPING MATERIALS
- LEAD IN PIPING MATERIALS
- SDWA / LEAD AND COPPER RULE IMPACT ON PIPING MATERIALS
- SYSTEM INVENTORY
- GETTING THE LEAD OUT

DISTRIBUTION SYSTEM MATERIALS IN USE THROUGHOUT MODERN HISTORY

- WOOD
- LEAD
- CAST IRON – LEAD JOINT – SLIP JOINT – MECHANICAL JOINT
- ASBESTOS CEMENT – AC – TRANSITE
- DUCTILE IRON – SLIP JOINT (PUSH ON) – MECHANICAL JOINT
- PVC – SLIP JOINT – FUSED – GLUED
- HDPE – FUSED – MECHANICAL JOINT
- STEEL – WELDED
- GALVANIZED STEEL
- COPPER
- BRASS
- CONCRETE

LEAD JOINT CAST IRON PIPE



WHY WAS LEAD PIPE USED?

- FLEXIBLE
- DURABLE
- EASY TO WORK WITH
- NOT SUBJECT TO PIN HOLE LEAKS
- PLUMBERS PROTECTING THEIR JOBS

REGULATION OF LEAD IN PLUMBING

- 1986 – CONGRESS AMENDED THE SAFE DRINKING WATER ACT – PROHIBITED THE USE OF PIPES, SOLDER OR FLUX THAT WAS NOT "LEAD FREE" IN PLUMBING OF FACILITIES FOR HUMAN CONSUMPTION. LEAD FREE WAS NO MORE THAN 8% LEAD IN PIPE AND .2% IN SOLDER OR FLUX.
- 1996 – CONGRESS AMENDED THE SAFE DRINKING WATER ACT – REQUIRED PLUMBING FITTINGS AND FIXTURES TO BE IN COMPLIANCE WITH VOLUNTARY LEAD LEACHING STANDARDS. ALSO PROHIBITED SELLING ANY PIPE, FITTING OR FIXTURE THAT WAS NOT LEAD FREE.

? THE BIG QUESTION ? LEAD SERVICE LINE INVENTORY

- ANOTHER POSSIBLE APPROACH IS TO TEST THE WATER AT EACH METER FOR LEAD. THIS WOULD BE AN INDIRECT METHOD BUT QUICKER AND AT LESS COST.
- THE WATER RESEARCH FOUNDATION HAS AN RFP FOR PROJECTS THAT WILL INVESTIGATE SERVICE LINE MATERIAL IDENTIFICATION TECHNIQUES

LEAD SERVICE LINE INVENTORY

CUSTOMER RECORDS



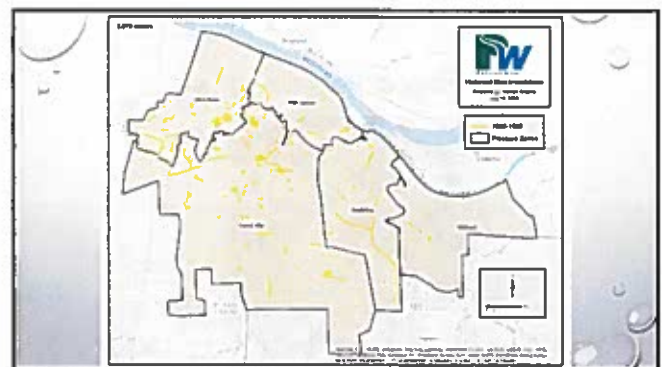
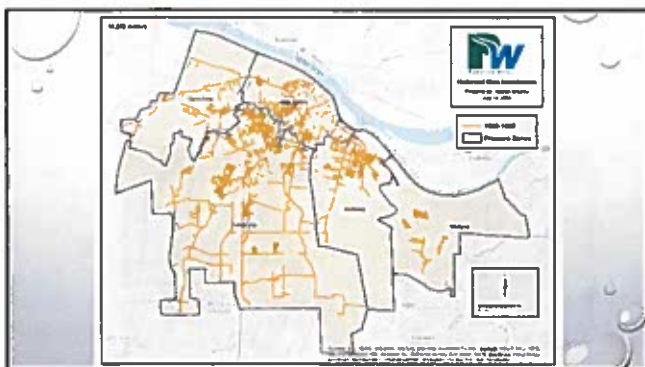
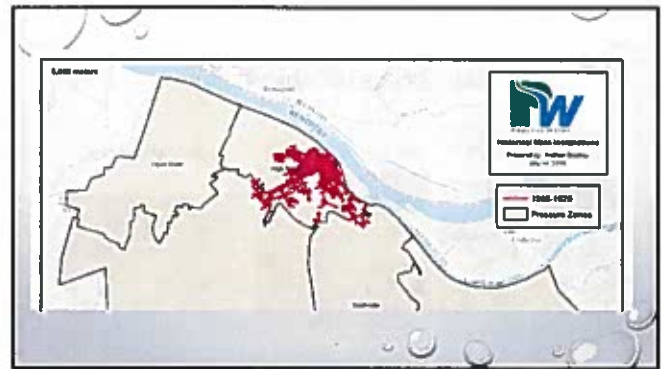
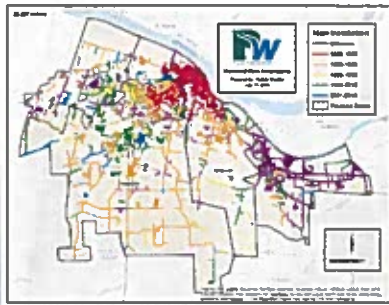
SYSTEM MAPPING



OLD PROJECT BOOKS



LEAD SERVICE LINE INVENTORY





HOW DO WE ADDRESS LEAD SERVICE LINES ?

- DO NOTHING
- CONTROL CORROSION / TEST AND MONITOR
- ADD PHOSPHATE / TEST AND MONITOR
- REPLACE ALL LEAD "PIG TAILS" AND SERVICES

SERVICE LINE REPLACEMENT

